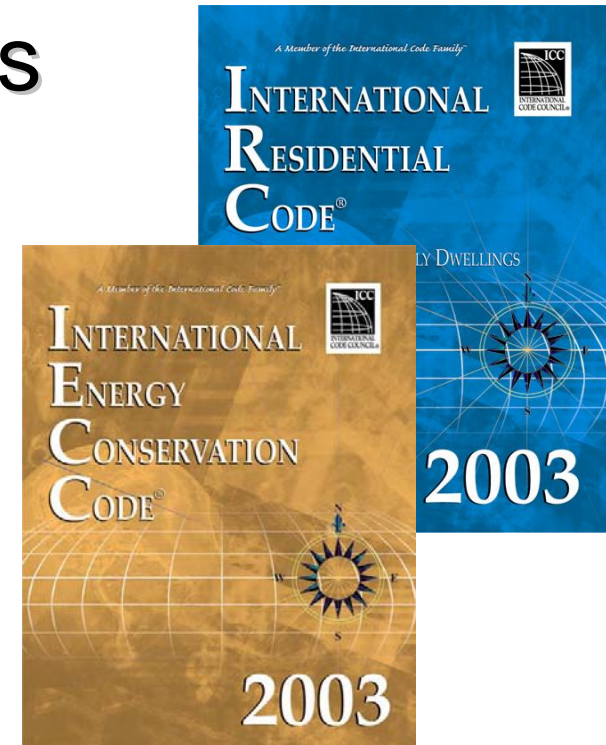


2003 IECC® Fundamentals - Residential

Based on the 2003
*International Energy
Conservation Code*





People Helping People Build a Safer World™

Governor's Energy Office

Education & Outreach Initiative

***International Energy Conservation Code (IECC®)
2003 & 2006 Editions***



Governor's
Energy Office



U.S. Department of Energy

Building Energy Codes

HB 1146

Concerning Energy Efficiency

- **Effective July 1, 2008**
- Raises baseline for building codes to 2003 IECC or 2006 IECC.
- ENERGY CODE means at a minimum, 2003 IECC
- Counties and Municipalities w/ building codes are required to adopt/apply the Energy Code to COM and RES buildings.
- Establishes a dedicated training and education program for jurisdictions w/ building codes.

Why an Energy Efficient Building Code?

- Energy consumption creates effects beyond the boundaries of local government where power production is centralized
- Emissions from consumption affect the health of our citizens
- Strain on the grid from peak electric power is not confined to jurisdictional boundaries
- There is statewide interest in the reliability of the grid and adequate supplies of heating oil and natural gas
- Lessening the impact of the increasing cost of energy for residents and businesses furthers statewide interest in a strong economy and reducing cost of housing in Colorado

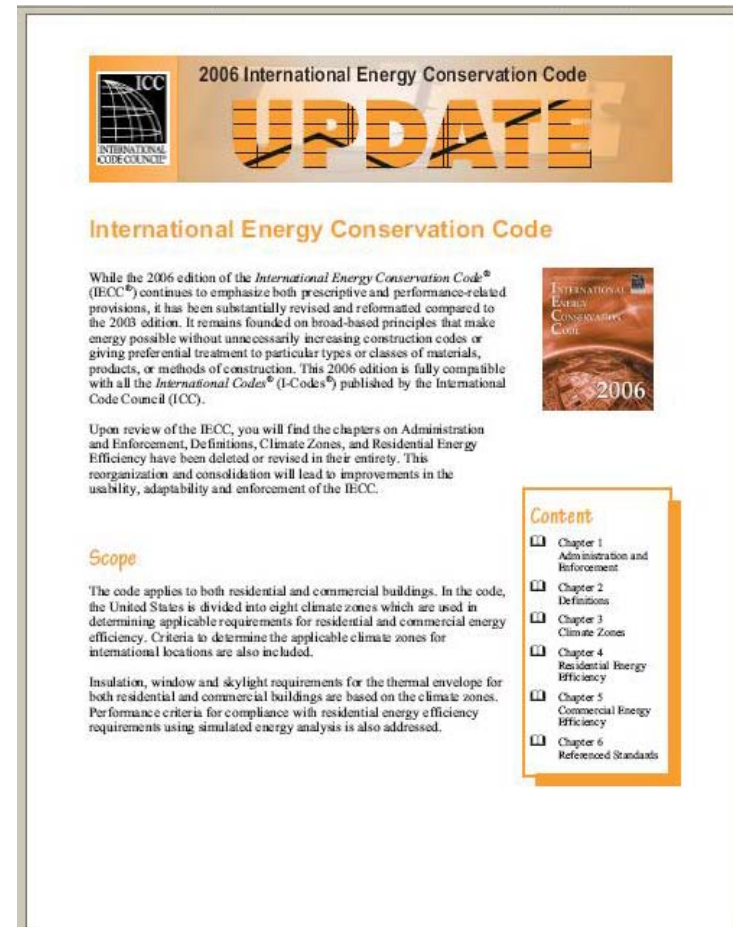
GEO

Education and Outreach Initiative

- Prepare up to 1,200 building regulatory professionals throughout Colorado for adoption of the 2003 and 2006 IECC.
 - Deliver 30 energy training sessions state-wide (in 90-days)
 - Participant code books and study material
 - Interpretation assistance to participants before and after the seminar
 - Publicly available training resources posted on the web
 - Deliver of one or more energy webinars
- House Bill 1146 Concerning Energy Efficiency
- Raises the baseline for local building codes to the 2003 IECC for counties and municipalities that already have a building code
- Buildings throughout Colorado will be more energy efficient and help us reach our goal of 20% efficiency statewide by 2020.

Update Series Seminars

- **By telephone a LIVE! And narrated virtual tour of the 2006 IECC**
 - Professionally scripted and narrated
 - 90-min technical presentation followed by
 - 30-min of live Q&A interaction
 - No travel hassle
- **Helps Code Officials and Designers transition to the 2006 IECC**
 - From the 2003 I-Codes to the 2006 I-Codes
 - Seminar focuses on major changes between the codes appropriate for design, construction, inspection, and other professionals.





INTERNATIONAL CODE COUNCIL®

People Helping People Build a Safer World™

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Standard Development

Committees & Councils

Code Questions

Technical Services & Plan Review

Contracts, Consulting & Technical Resources



Code Council Leads the Way in [Building Green](#).



INTERNATIONAL CODE COUNCIL
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Contracts, Consulting & Technical Resources



Governor's **Energy Office**

Colorado GEO Sponsored 2003 IECC and 2006 IECC Training

In partnership with local building departments, the Colorado Governor's Energy Office (GEO) has announced plans to deliver statewide residential and commercial energy code training workshops across Colorado. Workshops are offered in 28 locations around the state between April 21 and June 20, 2008.

The energy code workshops feature full day training on both commercial and residential energy codes, specifically the 2003 or 2006 versions of the International Energy Conservation Code (2006 IECC or 2003 IECC). Training is offered at no cost to Colorado code officials, homebuilders, developers, architects, engineers and other building industry professionals.

[Click here](#) to register for training.

During the 2007 legislative session, House Bill 1146 (HB 1146), was passed by lawmakers in an effort to improve the energy efficiency of state's new buildings as part of Colorado's New Energy Economy. HB 1146 calls for all jurisdictions that have a building code to adopt a minimum energy code standard by July 1, 2008.

**Building
Department
Accreditation**

**Free
WEBINAR
May 14**



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Contracts, Consulting & Technical Resources

Colorado Governor's Energy Office International Energy Conservation Code Training and Support Program

Interpretation Request

Name:

Email:

(Required to submit form)

**About you. Please indicate the most appropriate response:
(select only one).**

- | | | |
|--|------------------------------------|---|
| <input type="radio"/> Architect | <input type="radio"/> Contractor | <input type="radio"/> Permit Technician |
| <input type="radio"/> Builder | <input type="radio"/> Engineer | <input type="radio"/> Plans Examiner |
| <input type="radio"/> Code Official | <input type="radio"/> Fire Chief | <input type="radio"/> Residential Inspector |
| <input type="radio"/> Commercial Inspector | <input type="radio"/> Fire Marshal | <input type="radio"/> Other |

County:

Municipality:

Code Edition:

☐

2006 IECC

☐

2003 IECC

Code Section:

NEW!

eCodes

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**INTERNATIONAL
LEGACY
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STATE CODES
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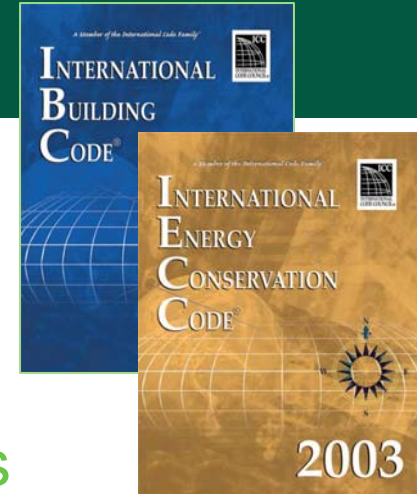
Available now at
www.ecodes.biz

Colorado Energy Conservation Code

- Any commercial building or structure in Colorado for which a building permit application is received by a municipality or county enforcing building codes
- Additions, alterations, renovations and repairs thereto to the extent the building code applies
- Compliance can be demonstrated by submitting
 - Approved Prescriptive Worksheets
 - COMcheck™ / REScheck™ Compliance Reports
 - ASHRAE 90.1 Compliance Forms
 - Third-party, performance-based assessment

Structure of the IECC

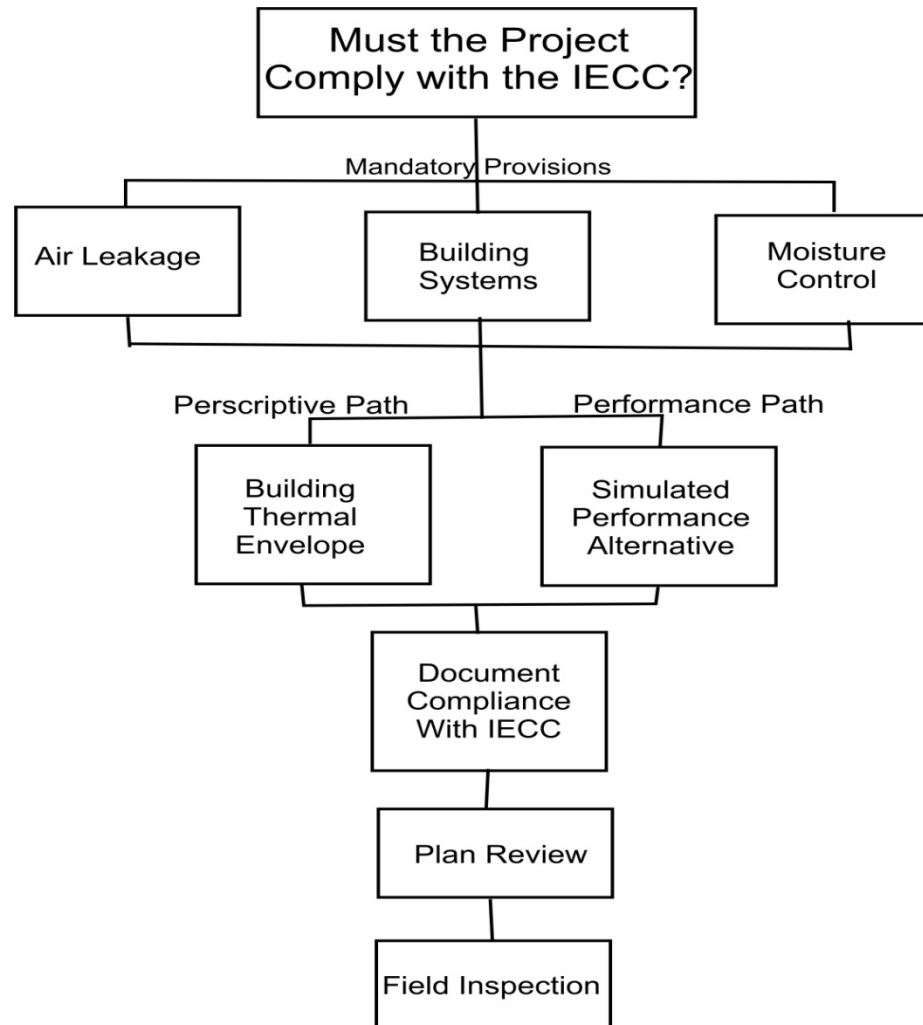
- Chapter 1 Administrative & Enforcement
- Chapter 2 Definitions
- Chapter 3 Design Conditions
- Chapter 4 Residential - Systems Analysis
- Chapter 5 Residential - Component Performance
- Chapter 6 Simplified Prescriptive Requirements
(International Residential Code Chapter 11)
- Chapter 7 ASHRAE 90.1-2001 Standard Reference
- Chapter 8 Acceptable Practice for Commercial
- Chapter 9 Climate Maps
- Chapter 10 Referenced Standards



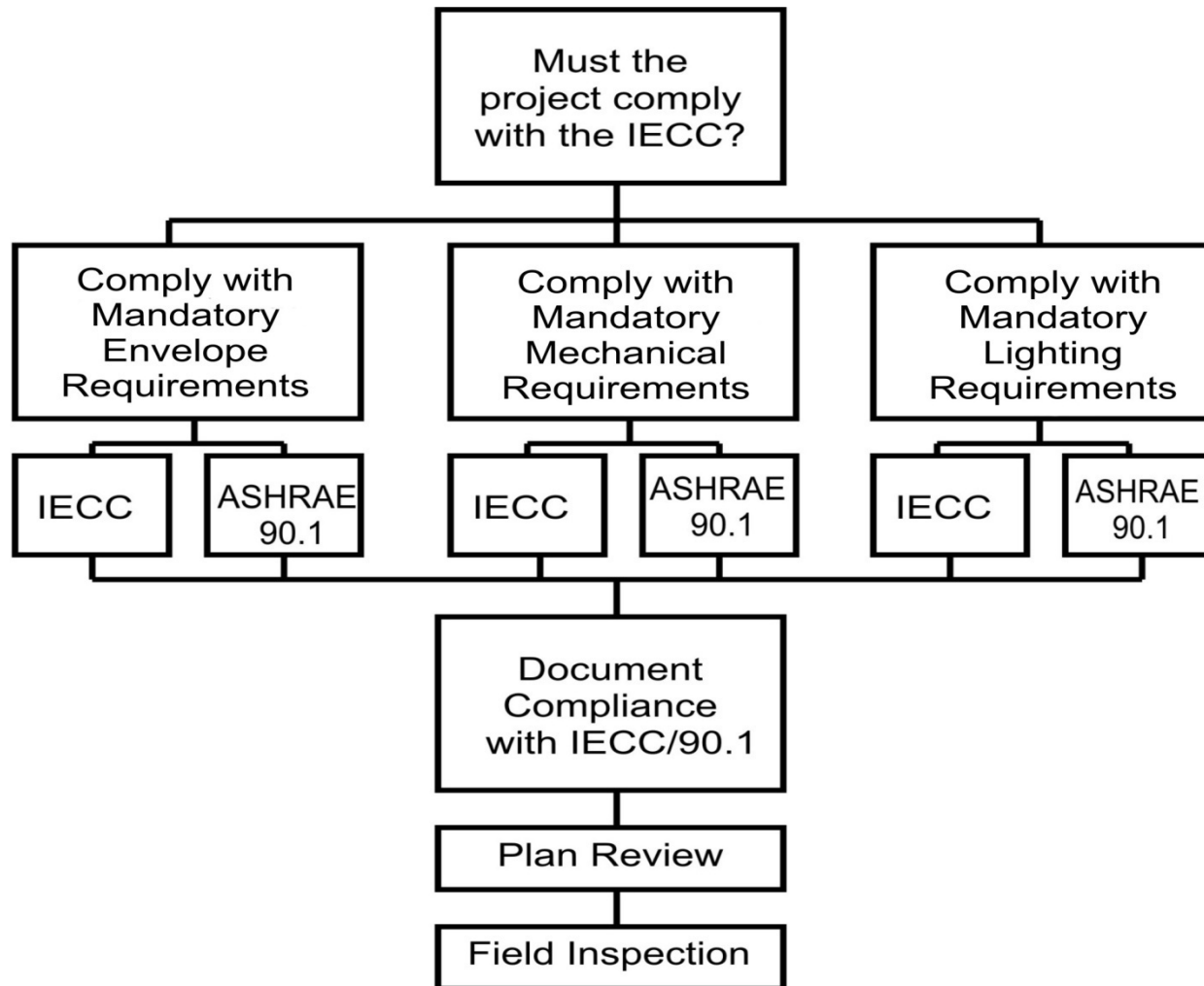
IECC Objectives

- Establishes minimum regulations for the design of energy efficient buildings/structures
 - One- and Two-family
 - Townhouses and Low-Rise Multifamily (R-2, R-4)
 - Commercial and High-Rise Multifamily
- Energy used primarily for “**human comfort**”
- Regulates design and selection of :
 - Building envelope
 - Mechanical systems
 - Service water heating systems
 - Electrical power and lighting systems

IECC Residential Compliance



IECC Commercial Compliance





Chapter 1 Administration

This chapter covers the administration of the 2003 International Energy Conservation Code. This code establishes minimum prescriptive and performance regulations for the design of energy efficient residential and commercial buildings



Chapter 2 Definitions

This chapter covers the definitions used throughout the 2003 International Conversation Code.



Chapter 3 Design Conditions

This chapter establishes the design conditions for use with Chapter 4, 5, 6, and 8.



Chapter 4

Residential - System Analysis

Residential Building Design by System Analysis and Design of Buildings Utilizing Renewable Energy Source . This chapter establishes design criteria in terms of total energy use by a residential building, including all of its systems.



Chapter 5

Residential – Component Performance

Residential Building Design by Component Performance Approach.

This chapter sets forth the performance requirements for residential buildings or portions thereof that enclose conditioned space.



Chapter 6

Simplified Prescriptive Requirements

Simplified Prescriptive Requirements for Detached One- and Two-Family Dwellings and Groups R-2, R-4, or Townhouse Residential Buildings. This chapter sets forth simplified prescriptive energy-efficiency-related requirements for the design and construction of detached one- and two-family dwellings and Group R-2, R-4 or townhouse residential buildings.



Chapter 7 ASHRAE 90.1

Building Design for All Commercial Buildings. This chapter requires that commercial buildings shall meet the requirements of ASHRAE/IESNA 90.1



Chapter 8

Acceptable Practice for Commercial

Design by Acceptable Practice for Commercial Buildings. This chapter provides the requirements that are applicable to commercial buildings or portions of commercial buildings.



Chapter 9 Climate Maps

This chapter establishes design conditioned based on the political boundaries for use with climate-dependent requirements in Chapters 5, 6, and 8.



Chapter 10 Referenced Standard

This chapter lists the standards that are referenced in various sections of the 2003 International Energy Conversation Code.



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People Helping People Build a Safer World™

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Thank You!



Governor's
Energy Office